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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,232	08/22/2003	George J. Gemberling	8822	1386

7590 09/07/2005

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EXAMINER	
EWALD, MARIA VERONICA	
ART UNIT	PAPER NUMBER
1722	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/646,232	GEMBERLING, GEORGE J.	
	Examiner	Art Unit	
	Maria Veronica D. Ewald	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 20* is/are pending in the application.

4a) Of the above claim(s) *11 - 20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

13. Claims 11 – 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 9, 2005.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Sanzone (U.S. 4,813,818). Sanzone teaches an apparatus for loading a mold cavity with particulate moldable material (column 1, lines 5 – 9), comprising: a moveable table member (figure 4 – item 11; column 4, lines 62 – 67), a target area defined on said table member, said target area comprising an opening in said table member (column 3, lines 37 – 38), material delivery means for delivering a measured quantity of the particulate moldable material onto said target area (column 2, lines 63 – 65; column 3, lines 5 – 6; column 5, lines 3 – 4), a door positioned under said target area (column 3, lines 37 – 39), means for moving said moveable table member between a first position where said target area is loaded and a second position where said target area is positioned over

the mold cavity (column 5, lines 3 – 5, 9 – 14), and means for selectively opening said door to release the particulate moldable material into the mold cavity (column 5, lines 13 – 15). Furthermore, Sanzone teach that the material delivery means comprises a hopper device driven in reciprocating fashion across said target area (item 12 – figure 3; figures 4 – 5; column 5, lines 9 – 10, 20 - 21). The hopper device is comprised of a tapering enclosure having an opening in the bottom thereof and defining an interior space (item 12; column 3, lines 62 – 65).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 – 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanzone in view of Zumalt (U.S. 3,610,414). Sanzone teaches the characteristics previously described but does not teach that the hopper device have a screen and rotating blade positioned within its enclosure.

In a method to screen particulate matter with larger frangible lumps, Zumalt teaches a hopper with sloping side walls with a screen plate and rotating blade (column 1, lines 4 – 5; column 2, lines 54 – 55). Zumalt further teaches that the hopper's screen is a V-shaped screen plate (item 60 – figure 2). The screen plate is mounted to the sidewalls of the hopper by a plurality of bolts (column 3, lines 4 – 5). In addition, there is

a screw conveyor axially positioned (item 80 – figure 1) in the trough-shaped bottom screen of the screen plate (column 3, lines 9 – 10). In operation, particulate matter flows through the openings in the sidewall screen and into the bottom screen (column 3, lines 38 – 40). Frangible or larger lumps which fall below the bottom screen are scraped by the edge of the screw flight against the inside face of the screen until they are reduced in size sufficiently to fall through the openings in the screen (column 3, lines 40 – 45). Furthermore, Zumalt teaches that the screw conveyor is driven by a motor (column 2, line 23). The ends of the shaft of the screw conveyor are mounted in the end wall of the hopper and connected via a speed reducer and V-belt to the motor (column 2, lines 20 – 25; column 3, lines 15 – 16). This reads on the Applicant's claims that the hopper be further comprised of a screen positioned in said interior space for sifting the particulate moldable material therein; that the hopper device also include a rotating blade device positioned within said enclosure in which the screen is positioned above said rotating blade device and arranged such that it is vibrated by said rotating blade device; and in addition, that the hopper device be further comprised of means for driving said rotating blade device in response to said reciprocating motion of said hopper device and means for maintaining the direction of rotation of said rotating blade device during reversal in the direction of travel of said hopper device.

It would have been obvious at the time of the Applicant 's invention to one of ordinary skill in the art to modify the material loading apparatus of Sanzone to further include the screen and rotating blade of Zumalt for the purpose of screening particulate

material and for crushing lumps during the screening operation prior to further processing or collection (column 1, lines 47 – 49).

Claims 6 – 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanzone in view of Haas, et al. (U.S. 3,534,439). Sanzone teaches an apparatus for compression molding items from particulate moldable material (column 2, lines 7 – 10), comprising: a compression mold having a mold core and a mold cavity (column 2, lines 9 – 10; column 5, lines 1 – 2), a moveable table member positioned proximate said compression mold (column 4, lines 62 – 65), a target area defined on said table member, said target area comprising an opening in said table member (column 3, lines 37 – 38), material delivery means for delivering a measured quantity of the particulate moldable material onto said target area (column 2, lines 63 – 65; column 3, lines 5 – 6; column 5, lines 3 – 4), a door positioned under said target area for selectively releasing the particulate moldable material into the mold cavity (column 3, lines 37 – 39), means for moving said table member to place said target area over said mold cavity (column 5, lines 5 – 7), and means for selectively opening said door and thereby releasing said particulate moldable material into said mold cavity (column 5, lines 13 – 15). Sanzone further teaches that the material delivery means is comprised of a hopper device, said hopper device comprised of a tapering enclosure having an opening in the bottom thereof and defining an interior space (item 12 – figure 3; column 3, lines 62 – 65), and driven in reciprocating fashion across said target area (item 12 – figure 3; figures 4 – 5;

column 5, lines 9 – 10, 20 – 21). Sanzone, however, does not teach that the mold cavity have a selectively moveable ring on its periphery.

In a compression molding apparatus, Haas, et al. teach a mold comprised of an upper punch (item 1 – figure 1), a base plate (item 2 – figure 1), and a thick bottom plate (item 3 – figure 1). The bottom plate is surrounded by a frame (item 6 – figure 1), which is slidable in the vertical direction along the side and end walls of the plate, preferably by means of hydraulic or pneumatic cylinder and piston units (column 3, lines 3 – 7). The frame, thus serves the purposes of determining the proper amount of moldable material which is required for molding the article, ensuring that the material is properly confined within the mold cavity such that the outer edges of the material do not yield outwardly and are subjected to the same pressure as the more central portion of the material, and of permitting the finished article to be easily removed from the mold (column 3, lines 35 – 47). This reads on the Applicant's claim that the mold cavity have a selectively moveable ring positioned around the periphery thereof.

It would have been obvious at the time of the Applicant 's invention to one of ordinary skill in the art to modify the material loading apparatus and compression mold of Sanzone with the moveable ring of Haas, et al. for the purposes of determining the proper amount of moldable material which is required for molding the article, ensuring that the material is properly confined within the mold cavity such that the outer edges of the material do not yield outwardly and are subjected to the same pressure as the more central portion of the material, and of permitting the finished article to be easily removed from the mold as taught by Haas, et al. (column 3, lines 35 – 47).

Claims 8 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanzone in view of Haas, et al. and further in view of Zumalt. Sanzone and Haas, et al. teach the characteristics previously described but do not teach that the hopper further include a screen and rotating blade within its interior.

In a method to screen particulate matter with larger frangible lumps, Zumalt teaches a hopper with sloping side walls with a screen plate and rotating blade (column 1, lines 4 – 5; column 2, lines 54 – 55). Zumalt further teaches that the hopper's screen is a V-shaped screen plate (item 60 – figure 2). The screen plate is mounted to the sidewalls of the hopper by a plurality of bolts (column 3, lines 4 – 5). In addition, there is a screw conveyor axially positioned (item 80 – figure 1) in the trough-shaped bottom screen of the screen plate (column 3, lines 9 – 10). In operation, particulate matter flows through the openings in the sidewall screen and into the bottom screen (column 3, lines 38 – 40). Frangible or larger lumps which fall below the bottom screen are scraped by the edge of the screw flight against the inside face of the screen until they are reduced in size sufficiently to fall through the openings in the screen (column 3, lines 40 – 45). Furthermore, Zumalt teaches that the screw conveyor is driven by a motor (column 2, line 23). The ends of the shaft of the screw conveyor are mounted in the end wall of the hopper and connected via a speed reducer and V-belt to the motor (column 2, lines 20 – 25; column 3, lines 15 – 16). This reads on the Applicant's claims that the hopper be further comprised of a screen positioned in said interior space for sifting the particulate moldable material therein; that the hopper device also include a rotating blade device positioned within said enclosure in which the screen is positioned above said rotating

blade device and arranged such that it is vibrated by said rotating blade device; and in addition, that the hopper device be further comprised of means for driving said rotating blade device in response to said reciprocating motion of said hopper device and means for maintaining the direction of rotation of said rotating blade device during reversal in the direction of travel of said hopper device.

It would have been obvious at the time of the Applicant 's invention to one of ordinary skill in the art to modify the material loading apparatus/compression mold of Sanzone with the moveable ring of Haas, et al. to further include the screen and rotating blade of Zumalt for the purpose of screening particulate material and for crushing lumps during the screening operation prior to the molding process, or any further processing or collection (column 1, lines 47 – 49).

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVE

ROBERT DAVIS
PRIMARY EXAMINER
GROUP ~~1300~~ 1700

9/1/05